

# **Condom use as a function of new young adult relationship duration**

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Objective: To find out how condom use in new relationships changes as a function of time, gender, as well as sexual and relationship satisfaction.

Method: Participants in a larger study who reported at least one new partner during the 12-week study interval (N=115; 18-29 yrs; 48% women; 75% African American) completed weekly STI testing and 3x/day electronic diary collection assessing individual and partner-specific affect, daily activities, sexual behavior and condom use. We analyzed event-level condom use percentage and subject-level behavior response effects. Generalized Additive Mixed Models (GAMMs) were used to estimate condom use probability accounting for within-subject and within-nested-partners correlations via random effects.

Results: The average initial condom use in the new relationships was 62% for men and 46% for women. The plotted smooth shapes of the estimated condom use probabilities fitted using GAMMs were qualitatively similar for both sexes throughout the study period. The initial high condom use percentage was followed by a sharp decline during the first 1.5 weeks to 19% for men and 14% for women. The condom use rates stabilized at around 6% after 4 weeks in a new relationship. Women who reported high levels of relationship satisfaction exhibited marginally significant negative association with condom use probability (p-value=0.055). Sex satisfaction was not significantly associated with condom use when both the time trends and gender were taken into account.

Conclusion: Condom use declines sharply for both males and females during the early stages of new relationships. Men use condoms more frequently than women in the early and middle stages of relationships. Relationship characteristics may also influence lower levels of condom use, especially among women.

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